DISCUSSION OF THE AMENDMENT

Due to the length of the specification herein, Applicant will cite to the paragraph number of the published patent application (PG Pub) of the present application, i.e., US 2008/0194447, when discussing the application description, both in this section and in the Remarks section, *infra*, rather than to page and line of the specification as filed.

Claim 4 has been amended by incorporating the subject matter of Claim 5 therein, by requiring acid treatment with a strong acid, as supported in the specification at paragraph [0039], and in a narrower amount range, as supported in the specification at paragraph [0037]. Claims 5, 7 and 12 have been canceled. Claim 18 has been amended to depend on Claim 4.

New Claims 24 and 25 have been added. Claim 24 is supported in the specification at paragraph [0025]. Claim 25 is supported in the specification at paragraph [0039].

No new matter is believed to have been added by the above amendment. With entry thereof, Claims 4, 6, 8-11, 13-16 and 18-25 will be pending in the application.

REMARKS

Applicants thank the Examiner and the Examiner's supervisor for the courtesy extended to Applicants' attorney during the interview held July 30, 2009, in the above-identified application. During the interview, Applicants' attorney explained the presently-claimed invention and why it is patentable over the applied prior art. The discussion is summarized and expanded upon below.

The rejections under 35 U.S.C. § 103(a) of:

Claims 4-7, 9-17, 19-21 and 23 as unpatentable over US 6,468,500 (Sakaguchi et al) in view of US 4,959,268 (Hagiwara et al),

Claims 8 and 22 as unpatentable over Sakaguchi et al in view of Hagiwara et al, and in further view of US 5,861,146 (Peterson et al); and

Claim 18 as unpatentable over Sakaguchi et al in view of Hagiwara et al, and in further view of US 5,883,035 (Yang),

are respectfully traversed.

Prior to the above-amendment, only Claim 18 required an acid treatment, i.e., an amount of acid that was greater than 0 meq/100g. Now all the claims require an acid treatment. Thus, as recited in above-amended Claim 4, an embodiment of the present invention is a method comprising deodorizing in the presence of a deodorant comprising crystalline aluminosilicate particles, wherein the aluminosilicate particles have a composition of:

$$\mathbf{s}\ M(1)_xO_y\bullet\mathbf{t}\ M(2)_2O\bullet Al_2O_3\bullet\mathbf{u}\ SiO_2\bullet\mathbf{v}\ R_mQ_n\bullet\mathbf{w}\ H_2O,$$

wherein M(1) is one or more members selected from the group consisting of Ag, Cu, Zn and Fe, M(2) is one or more members selected from the group consisting of Na, K and H, R is one or more members selected from the group consisting of Na, K, Ca and Mg, Q is one or more members selected from the group consisting of CO_3, SO_4, NO_3, and Cl, **s** satisfies

$0 < \mathbf{s} \leq 3$, and **t** satisfies $0 \leq \mathbf{t} \leq 3$, with proviso that $\mathbf{s} + \mathbf{t}$ is from 0.5 to 3, and **u** satisfies $0.5 \leq \mathbf{u} \leq 6$, **v** satisfies $0 < \mathbf{v} \leq 2$, **w** satisfies $\mathbf{w} \geq 0$, **x** satisfies $1 \leq \mathbf{x} \leq 2$, **y** satisfies $1 \leq \mathbf{y} \leq 3$, **m** satisfies $1 \leq \mathbf{m} \leq 2$, and **n** satisfies $1 \leq \mathbf{n} \leq 3$, wherein the aluminosilicate particle has a specific surface area of 1 m^2/g or more and less than 70 m^2/g, and

wherein the aluminosilicate particle is obtained by subjecting a raw material aluminosilicate particle having the composition in an anhydride form of:

a $M_2O \cdot Al_2O_3 \cdot$ b $SiO_2 \cdot$ c R_mQ_n,

wherein M is Na and/or K, R is one or more members selected from the group consisting of Na, K, Ca and Mg, Q is one or more members selected from the group consisting of CO_3, SO_4, NO_3, and Cl, **a** satisfies $0.5 \leq \mathbf{a} \leq 3$, **b** satisfies $0.5 \leq \mathbf{b} \leq 6$, **c** satisfies $0 < \mathbf{c} \leq 2$, **m** satisfies $1 \leq \mathbf{m} \leq 2$, and **n** satisfies $1 \leq \mathbf{n} \leq 3$,

to an acid treatment with a strong acid in an amount of 5 to 250 meq per 100 g of the raw material aluminosilicate particle (5 to 250 meq/100 g), and ion-exchanging with one or more metal ions selected from the group consisting of Ag, Cu, Zn and Fe.

The claims thus now require that the recited crystalline aluminosilicate particles be prepared by subjecting a raw material aluminosilicate particle having the composition in an anhydride form to an acid treatment with a strong acid and in a particular amount.

As Applicant's attorney noted during the above-referenced interview, all arguments made in the previous response still apply and are hereby incorporated by reference. Briefly, the more pertinent ones are that Hagiwara et al does **not** disclose or suggest that their antibacterial amorphous aluminosilicate solid particles *per se* (or their polymer containing the particles) have deodorizing action, but rather, Hagiwara et al disclose such action only when their inventive polymer is used with a substance having a different function; that Hagiwara et al limits their aluminosilicate particles to amorphous particles while Sakaguchi et al is limited to crystalline particles, and the Examiner has provided no nexus for, in effect, equating the

action of bactericidal metals in such different structures; and that there does not appear to be any problem in the combination of Sakaguchi et al and Hagiwara et al that requires leaching octahedral aluminum while leaving tetrahedral aluminum, which is the objective of the acid treatment in Yang.

In view of the above-discussed amendment to Claim 4, the present invention also distinguishes the applied prior art by virtue of the acid treatment. Again, it is only Yang that was specifically relied on to meet the acid treatment limitation of previous Claim 18. Thus, while Applicant continues to submit that Yang is irrelevant for reasons previously stated, Yang describes his acid treatment as "by mild acid-activation (Abstract), as pointed out by Applicant's attorney during the interview and who also pointed out that in addition, Hagiwara et al describes that "it is necessary in order to prepare Ag-AMAS of excellent quality that the concentration of this solution be set so as not to be excessively high and the pH of the solution be maintained in the neutral or slightly acidic region" (column 8, lines 2-6.) Therefore, in both Yang and Hagiwara et al, the acid treatment is required to be carried out under mild conditions. Thus, even if one of ordinary skill in the art were to combine the references as has the Examiner, (and Applicant continues of course to submit that they would not have been combined), mild acid conditions would be used to form the aluminosilicate. Moreover, as a further distinction from Yang, the aluminosilicate particle in the present invention has a specific surface area within the range of 1 m^2/g or more and less than 70 m^2/g, which is comparatively smaller than the values disclosed in Yang where the octahedral aluminum is dissolved to make the surface porous with a specific surface area of from 300 to 730 m^2/g (column 2, line 55). In the present invention, on the other hand, the crystals are not dissolved by the strong acid.

New Claim 24 is separately patentable for the additional reason that cancrinite has no octahedral aluminum, as would be well-known in this art. Therefore, one skilled in the art

would not look to has no octahedral aluminum, as would be well-known in this art. Therefore, one skilled in the art would not look to Yang to address a problem that does not involve removing octahedral aluminum.

For all the above reasons, it is respectfully requested that the rejections be withdrawn.

Applicants respectfully submit that the present application is in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.
Norman F. Oblon

Harris A. Pitlick
Registration No. 38,779

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 08/07)